

# The new generation broad-spectrum penicillin

# INDICATIONS AND DOSAGE

Infections of the ear, nose and throat due to streptococci, pneumococci, and penicillinsensitive staphylococci; infections of the upper respiratory tract due to H. influenzae; infections of the genitourinary tract due to E. coli, P. mirabilis, and S. faecalis; infections of the skin and soft tissues due to streptococci, penicillin-sensitive staphylococci and E. coli:

### **USUAL DOSE:**

ADULTS 250 mg every 8 hours

CHILDREN 25 mg/kg/day in divided doses every 8 hours

In severe infections or infection associated with organisms where sensitivity determinations indicate higher blood levels may be advisable: 500 mg every 8 hours for adults, and 50 mg/kg/day in divided doses every 8 hours for children may be needed. This dosage should not exceed the recommended adult dosage.

Infections of the lower respiratory tract due to streptococci, pneumococci, penicillinsensitive staphylococci and H. influenzae:

# **USUAL DOSE:**

ADULTS 500 mg every 8 hours

CHILDREN 50 mg/kg/day in divided doses every 8 hours

This dosage should not exceed the recommended adult dosage.

**Urethritis** due to N. gonorrhoeae: 3 g as a single oral dose.

# CONTRAINDICATION

In patients with a history of allergy to the penicillins and cephalosporins.

Product Monograph available on request.

# SUPPLIED

AMOXIL-250 Capsules—each contains 250 mg amoxicillin (as the trihydrate)

AMOXIL-500 Capsules—each contains 500 mg amoxicillin (as the trihydrate)

AMOXIL-125 Suspension—125 mg amoxicillin per 5 ml, in 75 ml & 100 ml bottles

AMOXIL-250 Suspension—250 mg amoxicillin per 5 ml, in 75 ml & 100 ml bottles

AMOXIL Pediatric Drops—15 ml (50 mg/ml) in dropper bottle



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# Potential Interest Of the Elderly In Active Euthanasia

A. S. KRAUS, ScD; R. A. SPASOFF, MD E. J. BEATTIE, RN; D. E. W. HOLDEN, PhD; J. S. LAWSON, PhD; M. RODENBURG, MD; and G. M. WOODCOCK, RN, BSN.

# **SUMMARY**

As part of a larger study, elderly applicants to institutions and elderly residents of the community were questioned on their potential interest in active euthanasia. Of these, 19 percent and 23 percent respectively said they would want a lethal injection. A further ten and nine percent respectively said they would want a lethal pill, if ever hopelessly ill. Most elderly community residents who would prefer to carry on as best as they could nevertheless thought that alternatives should be available to those wanting them.

Drs. Kraus and Spasoff, and Nurses Beattie and Woodcock are members of the Department of Community Health and Epidemiology at Queen's University. Dr. Holden is a member of the Department of Sociology; Dr. Lawson is in the Department of Psychology and Dr. Rodenburg is on the staff of the Department of Psychiatry. Address for reprints: Dr. A. S. Kraus, Dept. of Community Health and Epidemiology, Queen's University, Kingston, Ontario K7L 2N6.

THERE IS increasing interest in the issue of withdrawing life-supporting procedures (passive euthanasia) or the use of procedures to hasten death (active euthanasia) in hopelessly ill patients or their families who request such a course. At least three books were published on the subject in 1975.<sup>1-3</sup> There have been

several reports in the newspapers<sup>4, 5</sup> and a number of discussions and comments have appeared in professional journals.<sup>6, 7</sup> Gilder's introductory comment<sup>6</sup> is worth quoting: "One would have to be pretty unimaginative not to realize that euthanasia is just around the corner for some population group somewhere on this planet. There

has been more and more talk about it and a gradual softening of resistance to it, strongly resembling the process that took place in regard to abortion in so many lands."

There have been several surveys of British<sup>3</sup> and American<sup>8-10</sup> physicians on this subject. Travis<sup>10</sup> surveyed all physicians in Iowa by mail questionnaire and obtained a 50 percent response, of whom 44 percent said they frequently omitted life-prolonging medications or procedures in managing terminal patients, and only six percent said they never had done so. Travis comments that this is the first documentation of the assumption that this is a common practice.

Russell<sup>3</sup> reviews the findings of public opinion polls on the issue of euthanasia. The American Institute of Public Opinion (Gallup poll) conducted a poll in 1939 asking "Do you favor mercy deaths under government supervision for hopeless invalids?" Forty-six percent of respondents were in favor and 54 percent against (page 85). Younger people were more in favor than were older people. In a similar poll by the British Institute of Public Opinion in 1939, 69 percent of respondents endorsed the principle of euthanasia. In a U.S. Gallup poll in 1947 involving a similar question (page 102), the proportion supporting the principle of legal euthanasia had dropped to 37 percent. By 1973, a Gallup poll in the U.S. reported that public approval of mercy killing had increased to 53 percent (page 198). A Gallup poll of Canadians in 1968 found that 45 percent thought that mercy killing should be legal and 43 percent that it should not be; the remainder apparently expressed no opinion (page 199).

None of the public opinion polls cited had asked respondents about their potential personal interest in using euthanasia if they should ever be in the relevant situation. Nor have we found any report of such an inquiry among groups of sick or disabled individuals. As part of a larger study of long-term care for the elderly in our region, we included questions on their potential personal interest in active euthanasia when interviewing elderly applicants to long-term care institutions and elderly people living independently in the community.

# Method

The general methodology of our study is described in our first pub-

lished report of the findings. 11 Between June 1973 and June 1974, 115 applicants or new admissions to long-term care institutions who resided in Frontenac or Lennox-Addington counties were interviewed. All were over age 65 (applicant group). Interviews were also carried out in the winter of 1974-75 with 141 people over age 65 living outside of institutions. These were a representative sample from the assessment rolls in Kingston, Napanee and five of the townships in the two counties (independent group).

Following questions concerning the respondent's feelings and state of mind, we asked each respondent the following question: "Suppose you had a very serious illness which very much limited what you would do, or which caused you much pain and suffering and made your life a misery. The doctors could offer no hope of improvement, and you felt that you would rather die than continue living under these conditions. Also, suppose that social customs were different from now, so that you were free to carry out any of the choices I shall list. Which do you think you would choose?

A. To carry on as best you could

B. An injection that would cause you to die quickly and painlessly

C. A pill that would cause you to die quickly and painlessly, so that you could take it whenever you decided to D. Other (specify)"

The answers obviously cannot be considered as any assurance that the respondent would make the choice indicated if he were in the actual situation described. Nevertheless, we felt that they would provide a worthwhile indication of thinking on this subject among the elderly.

In interviews with the independent group, we added a question for those who had not indicated a potential interest in active euthanasia for themselves by selecting any of the appropriate options in the question above: "Do you believe that other people in that situation who would want the injection or pill should be able to obtain it openly and legally?"

# **Findings**

As seen in Table 1, a little more than half of the applicant group and a little less than half of the independent group made the unqualified choice of carrying on as best as they could if



# crodantin

#### References:

- Roth, R.B. et al. The Ruined Kidney, Filmstrip produced with the cooperation of the Hess Urological Foundation, Inc. Erie, Pa.,
- 2. Kunin, C.M.: Detection, Prevention and Management of Urinary Tract Infections. Philadelphia, Lea & Febiger, 1972 pg. 188 11.
  Shirley S.W. and Ozog L.S.: Urology Digest 9:8-10, 1970.
  Kalowski S., Radford N., Kincaid-Smith P: New Eng. J.M 290:
- 386, 1974,

The large crystal size of Macrodantin (nitorfurantoin macrocrystals) provides the proven clinical efficacy of Furadantin (nitrofurantoin) but with increased gastro intestinal tolerance. In a comparative clinical study the incidence of nausea and/or emesis was appreciably less with Macrodantin than with Furadantin. Patients unable to tolerate Furadantin reported good tolerance of Macrodantin.

#### Indications:

Macrodantin is indicated for the treatment of pyelonephritis, pyelitis and cystitis caused by sensitive organisms

#### Contraindications:

Anuria, oliquria or extensive impairment of renal function. Infants

Haemolytic anaemia, which disappears on cessation of drug therapy has been reported in sensitive individuals. Usually defined as the 10% of negroes and lower percentages of people of Mediterranean and near Eastern origin who exhibit glucose — 6 — phosphate dehydrogenase deficiency of the red blood cells. Safety during pregnancy and lactation has not been established

#### Precautions:

Peripheral neuropathy has been reported with nitrofurantoin. This may become severe and irreversible and one fatality has been reported. Therapy should be discontinued if numbness and tingling occur.

Macrodantin should not be co-prescribed with drugs which impair renal function

#### Adverse Reactions:

Nausea, emesis, and less frequently, diarrhea may occur; reduction in dosage may alleviate these symptoms.

Sensitization appearing as an erythematous, maculopapular cutaneous eruption, urticaria, eczematoid eruption or pruritus has occurred

Hypersensitivity reactions resulting in nonfatal anaphylaxis, angioedema, pulmonary infiltration with pleural effusion, and eosinophilia have been reported. Other possible reactions are chills, fever, jaundice, asthmatic symptoms, and hypotension. Occasional minor reactions such as headache, dizziness, nystagmus, vertigo, drowsiness, malaise, and muscular aches have oc-

Transient alopecia has been reported.

Leukopenia, including granulocytopenia has been reported rarely. Return of the blood picture to normal has followed cessation of therapy.

As with other antimicrobial agents, superinfections by resistant organisms may occur. With Macrodantin, however, these are limited to the genitourinary tract because suppression of normal bacterial flora elsewhere in the body does not occur.

# Administration and Dosage:

Dosage: Adult: 50 to 100 milligrams four times a day.

Children: Should be calculated on the basis of 5 to 7 milligrams per kilogram (2.2 to 3.2 mg per lb) of body weight per 24 hours, to be given in divided doses four times a day (contraindicated under one month of age)

Administration: Macrodantin (nitrofurantoin macrocrystals) may be given with food or milk to further minimize gastric upset.

Therapy should be continued for at least one week and for at least 3 days after sterility of the urine is obtained. Continued infection indicates the need for re-evaluation. If the drug is to be used for long-term suppressive therapy, a reduction of dosage should be

# How Supplied:

Macrodantin is available in opaque white imprinted capsules of 25 mg. (Eaton 007) in bottles of 30, 100 and 500 capsules; opaque yellow/white imprinted capsules of 50 mg. (Eaton 008) in bottles of 30, 100, and 500 capsules; opaque yellow, imprinted capsules of 100 mg. (Eaton 009) in bottles of 30, 100, and 500 capsules.

# Product monograph available on request.

Originators and Developers of the Nitrofurans



faced with the hypothetical situation quoted. However, 19 percent and 23 percent respectively said they would choose the lethal injection, while a further ten percent and nine percent respectively said they would want to have the lethal pill in their possession. Thus, almost a third in the independent group expressed interest in actual or potential direct action to hasten death if they were in the hypothetical situation in question. This proportion was very similar in the applicant group, whose actual situation tended to be closer to the hypothetical one than was the case in the independent group.

Of those in the independent group who were asked if they believed the alternatives stated should be available to other people in that situation openly and legally, 54 percent said yes, 26 percent said no, and 20 percent didn't know or declined to answer.

# Discussion

One cannot assume that the respondents would follow the courses of action suggested by their responses in this survey. Nevertheless, we believe that it is important to record that almost a third of a representative sample of people over age 65 living independently in the community expressed a potential interest in receiving active euthanasia if ever faced with a hopeless illness or state of disability, and that the majority of the others believed that those who would want active euthanasia in that situation should be able to obtain it openly and legally. Also, these proportions were very similar to the applicant group who had much more disability than the independent group. To our knowledge, these are the first data of this kind obtained from a representative sample of any age group in the population, or from any sick or disabled group.

It seems likely from our findings that an appreciable proportion of hopelessly ill people would actually avail themselves of some form of active euthanasia if the means to do so were openly and legally available.

# Acknowledgement

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# References

1. CRANE, D.: The Sanctity of Social Life: physicians' treatment of critically ill patients. New York, Russell Sage Foundation, 1975

2. KOHL, M. (Editor): Beneficent Euthanasia. Buffalo, N.Y. Prometheus Books,

3. RUSSELL, O. R.: Freedom To Die. New York, Human Sciences Press, 1975.

4. "Lawyer writes living wills for those who prefer death to living as medical vegetables". Article in Globe and Mail, Nov. 6, 1975.

5. "Fatally ill often let go without heroics". Article in Globe and Mail, Nov. 15, 1975.

6. GILDER. S. S. B.: From the overseas journals - Dutch report on euthanasia. Can Med Assoc J 112:1395, 1975.

7. BYRNE, P. M., STOGRE, M. J.: Agathanasia and the care of the dying. Can Med Assoc J 112:1396, 1975.

8. WILLIAMS, R. H.: Our role in the generation, modification, and termination of life. J Amer Med Assoc 209:914, 1969. 9. BROWN, N. K., BULGER, R. J. et al: The preservation of life. JAMA 211:76,

10. TRAVIS, T. A., NOYES, R., BRIGHT-WELL, O. R.: The attitudes of physicians toward prolonging life. Intl J of Psychiatry in Med 5:17, 1974.

11. KRAUS, A. S., SPASOFF, R. A., BEATTIE, E. J. et al. Elderly applicants to long-term care institutions. Part I. Their characteristics, health problems, and state of mind. J Am Geriatr Soc 24:117, 1976.

TABLE 1 Responses to Question on Potential Interest in Active Euthanasia

	Applicant Group		Independent Group	
Choice	No.	%	No.	%
To carry on as best as he could	65	56	64	46
A lethal injection	22	19	33	23
To have a lethal pill to take when desired	11	10	13	9
To carry on, but specified that would reject life-prolonging	_			
procedures	7	6	9	6
Vague, don't know, no answer	10	9	22	16
Total	115	100	141	100